

ELECTROLYTE FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY USING IT

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Applicant: UBE INDUSTRIES

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- international: **H01M10/40; H01M10/36; (IPC1-7): H01M10/40**

- european:

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Abstract of JP2000195545

PROBLEM TO BE SOLVED: To increase cycle characteristics, capacity, and shelf life characteristics in a charged state of a battery by including at least one of alkine derivatives. **SOLUTION:** This electrolyte contains at least one of alkine derivatives represented by formulas I, II, and III. In formulas, R1, R2, R3, and R4 independently are a 1-12C alkyl group, 3-6C cycloalkyl group, aryl group or hydrogen atom. In Y1, Y2 and Y3, R5, R6, and R7 independently are a 1-12C alkyl group, 3-6C cycloalkyl group, and aryl group. (n) is an integer of 1 or 2. The content of the alkine derivative in the electrolyte is preferable to be 0.01-20 wt.%. As a nonaqueous solvent, a mixture of a high dielectric constant solvent such as ethylene carbonate and a low viscosity solvent such as dimethyl carbonate is preferable.

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